

REMARKS

OVERVIEW

Claims 1-25 and 119-143 were pending in the present application. Although all claims stand rejected, the only issues raised in the Office Action are claim wording objections to claims 1, 17 and 135, and a § 112 Rejection regarding a phrase in independent claims 1 and 119. The present response addresses each of these issues. Reconsideration based on this response is respectfully requested.

CLAIM OBJECTIONS

The changes to claims 1, 17, and 135 suggested by the Office Action have been made.

SECTION 112 REJECTIONS

Claims 1, 4-6, 8-25, 119, 122-124, and 126-143 stand rejected under 35 U.S.C. § 112, first paragraph. The Office Action takes the position that the phrase "without an individual container for each set or monitoring a physical location correlated to a pre-defined physical coordinate system" in independent claims 1 and 119 is a negative limitation which does not find support in Applicants' specification.

This rejection is respectfully traversed. It is respectfully submitted that the written description requirement of § 112, first paragraph, requires that the original application support that the Applicants were in possession of the claimed invention at the application date. For similar reasons as expressed in Applicants' prior response, it is respectfully submitted the

specification fully meets this test. However, to advance prosecution of the present invention, the phrase has been deleted from independent claims 1 and 119.

It is therefore respectfully submitted that independent claims 1 and 119, and all of their dependent claims, overcome the § 112, first paragraph rejection. As this is the only rejection of the claims, and all other requirements of the Office Action have been met, it is respectfully submitted all claims are in allowable form. Favorably action is respectfully requested.

Minor revisions have been made to claims 1, 9, 17, 119, 126, 127, and 135 for consistency and clarity between claims.

NEW CLAIMS

New claims 144-150 are submitted with this response. These new claims pursue additional aspects disclosed in Applicants' specification. The claims are modeled off of claims 1 and 119.

In particular, new claims 144-150 emphasize an aspect of the invention relative to the ability to achieve relatively high through put of multiple seed samples. As described in detail in Applicants' specification, seed conditioning requires operations such as (a) separating non-seed material from seeds and (b) separating desired seed from other seed. An example of the former is removal of dirt, plant material, insects, and foreign material from seed. An example of the latter, is removal of seeds that are too small, seeds that are too large, damaged seeds, or diseased seeds, from those that are being selected.

A problem facing the Applicants was how to decrease the per sample conditioning processing time. As indicated in the Background of the Invention, a prior method was to take a sample, process it from start to finish, package it, and then do the same for subsequent samples.

In that manner, the identity of each sample could be maintained without significant risk of contamination by seed from other samples.

It was recognized by the Applicants that improved efficiencies could be realized if sets of samples could be introduced at an input, without needing to wait for the first sample to be completely processed before the next sample proceeds. A problem to overcome, however, was that seed conditioning requires that individual seed be evaluated and discriminated, not only from non-seed but from other seed in the same sample. Seed conditioning does not allow batches of a plurality of seed to be generalized or passed through the processes without, most times, subdividing a sample based on the conditioning operations.

Claims 144-150 set forth a combination of steps, with specific limitations, that describe a solution for the above-mentioned problem. As set forth in claim 144, an unconditioned set of seed (e.g. a seed sample comprising a plurality of seed) is introduced at an input but segregated from other sets of seed (other samples). A unique identifier is correlated to each sample. These individually identified sets of unconditioned seed are introduced serially into the input of the method. Claim 144 also specifically states that those sets of seeds, after conditioning, are delivered to the output serially but segregated from other sets of seed. Following limitations similar to claims 1 and 119, delivery of the sets at the output, in a segregated fashion, is made possible by automatic conveyance to the two operations, but each operation is performed on only one set of seed at a time. This is accomplished by controlling one or more (1) "state of said conveying or a said operation or (2) timing of said conveying or a said operation". This limitation is based on Applicant's specification and original claims. For example, a timing regimen can be programmed to move each set from operation to operation after a sufficient time is allowed for operation. Or, gates or actuators are controlled. Claim 144 then specifically sets

forth each serially delivered and segregated conditioned set of seed is automatically accumulated at the output even though the operations evaluated each seed of each set, as opposed to the set generally. Finally, claim 144 specifically states that the method allows "both preservation of identity between multiple sets of seed while performing seed conditioning operations on individual seed of each batch" (emphasis added).

Thus, claim 144 addresses operating on individual seeds but maintaining the identity of multiple batches or sets of those seeds that proceed serially through the conditioning process. Doing so allows improved throughput by allowing multiple samples to progress between input and output simultaneously.

In direct contrast, as set forth in Applicants' prior response, the cited art of record uses either containers to maintain segregation or some sort of physical coordinate space to which each sample is continually referenced. Claim 144 is a method claim. Therefore, to anticipate or make obvious claim 144, a reference or combination of references must either substantially identically disclose all limitations of the claim, or teach or suggest the same, in the arrangement set forth in the claim. It is respectfully submitted claim 144 is neither anticipated nor obvious based on any reference of record or any combination of the same. The arguments set forth in Applicants' prior response regarding prior rejections based on prior art are incorporated by reference herein.

For the same reasons, dependent claims 145-149 and independent claim 150 are submitted to be patentable. Independent claim 150 differs from claim 144 primarily in the additional limitation that non-seed and separated non desired seed from the conditioning process are either discarded or accumulated for other use. This further distinguishes claim 150 from any of the art of record.

CONCLUSION

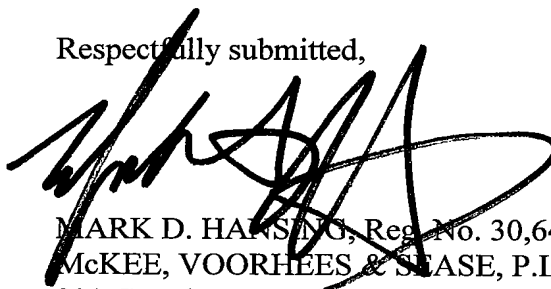
It is respectfully submitted that all matters raised in the Office Action have been addressed and remedied and that the pending claims are in allowable form.

Additionally, it is submitted the new claims are patentable.

Please charge \$550.00 to Deposit Account No. 26-0084 for one additional independent claim (\$200) and seven new total claims (\$350). It is not believed any additional fees or extensions of time are required for entry of this response, but if any has been inadvertently overlooked, please consider this a request therefore and charge any required fees to Deposit Account 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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